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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/772,176	01/29/2001	James A. Proctor JR.	TAN-2-1508.01.US	1093

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EXAMINER

BURD, KEVIN MICHAEL

ART UNIT	PAPER NUMBER
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2611

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04/22/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/772,176	Applicant(s) PROCTOR, JAMES A.	
	Examiner Kevin M. Burd	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-17,19,21,22,25-37,39 and 42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-17,19,21,22,25-37,39 and 42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. This office action, in response to the request for continued examination (RCE) and the amendment filed 2/19/2009, is a non-final office action.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/19/2009 has been entered.

Response to Arguments

3. Applicant's arguments filed 9/30/2008 have been fully considered but they are not persuasive.

Regarding the rejections of the claims by Suonvieri, Suonvieri discloses the quality of the received transmission is determined by determining frequency errors present. The quality of the signal is the metric. The quality is indicative of a change in the signal path. The frequency errors are a modulation attribute being at least one of amplitude, frequency or phase of the calculating step of claim 1. The adjusted signal parameter is indicative of the mobile which changes the power and range on the metric. This compensates for changes affecting the signaling path. The change of the range and power of the wireless transmission is the adjusting a modulation attribute of the

Art Unit: 2611

adjusting a signal parameter step of claim 1. The modulation attribute of the adjusting step is not the same modulation attribute of the calculating step nor does the modulation attribute of the calculating step have to be at least one of an amplitude, frequency or phase. For these reasons and the reasons stated in the previous office action, the rejections of the claims are maintained and stated below.

Regarding the rejections of the claims by Jou, Jou discloses the velocity of the mobile is determined. This results in a change in the signaling path. The gain of the signal is adjusted to compensate for the change in the signaling path by adjusting the signal power. This adjustment of the transmission power is the adjusting of a modulation attribute of the adjusting a signal parameter step of claim 1. For these reasons and the reasons stated in the previous office action, the rejection of the claims is maintained and stated below.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 19 and 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 19 and 39, it is unclear which modulation attribute is being referred to in the claims. At least one modulation attribute is discussed in the calculation step of claim 1 and a different modulation attribute is adjusted in the adjusting at least one signaling parameter step of claim 1. Correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 8-15, 19, 21, 28-35, 39 and 42 are rejected under 35 U.S.C. 102(e) as being anticipated by Suonvieri et al (US 6,259,919).

Regarding claim 1, 11-13, 21, 31-33 and 42, Suonvieri discloses an apparatus and a method of using the apparatus that adaptively changes a signal path in a wireless link. A signal is received from a mobile station and frequency errors of the received signal are determined (figure 3 and abstract). The frequency errors are indicative of motion of the mobile station. When the base station identifies the mobile station as a fast mobile station (as determined by the frequency errors) an adjustment of the wireless link can take place (column 3, lines 38-55). Suonvieri provides the example of handing off the mobile to a larger cell. This would change the range and power of the wireless transmission (column 3, lines 38-44). Suonvieri discloses the quality of the received transmission is determined by determining frequency errors present. The quality of the signal is the metric. The quality is indicative of a change in the signal path. The frequency errors are a modulation attribute being at least one of amplitude, frequency or phase of the calculating step of claim 1. The adjusted signal parameter is

Art Unit: 2611

indicative of the mobile which changes the power and range on the metric. This compensates for changes affecting the signaling path. The change of the range and power of the wireless transmission is the adjusting a modulation attribute of the adjusting a signal parameter step of claim 1. The modulation attribute of the adjusting step is not the same modulation attribute of the calculating step nor does the modulation attribute of the calculating step have to be at least one of an amplitude, frequency or phase.

Regarding claims 8-10 and 28-30, Suonvieri discloses means for adjusting the limit value to correlate with a set value for adjusting the length of the time interval to adjust for the frequency changes (column 2, lines 43-54). The error in the correlation is changed to ensure the frequency error is compensated for.

Regarding claims 14 and 34, the frequency error is compared to a threshold to determine the error.

Regarding claims 15 and 35, the changing of the parameter will change the antenna used to transmit to the mobile station.

Regarding claims 19 and 39, the system will be adjusted to remove the frequency errors from the system.

6. Claims 1, 2, 5-7, 14, 19, 21, 22, 25-27, 34, 39 and 42 are rejected under 35 U.S.C. 102(e) as being anticipated by Jou et al (US 6,564,042).

Regarding claims 1, 21 and 42, Jou discloses an apparatus and a method of using the apparatus that adaptively changes a signal path in a wireless link. The method

Art Unit: 2611

estimates the velocity of a mobile station for a given frame rate and data rate and provides three gains to choose based on the estimated velocity in order to specify a transmit power level (abstract). The system computes the gain level indicative of the velocity of the mobile and adjusts the transmit power (column 4, line 64 to column 5, line 30). Jou discloses the velocity of the mobile is determined. This results in a change in the signaling path. The gain of the signal is adjusted to compensate for the change in the signaling path by adjusting the signal power. This adjustment of the transmission power is the adjusting of a modulation attribute of the adjusting a signal parameter step of claim 1

Regarding claims 2 and 22, Claims 4-10 of Jou recite an infrastructure element in a wireless communication network. The infrastructure elements of the network are shown in figure 1 and include mobile stations, base stations, base station controllers and mobile station controllers.

Regarding claims 5-7 and 25-27, Jou discloses the metric for changing the power level of the mobile transmission is determined by the gain value. The gain table entries are advantageously modified (column 5, lines 9-24).

Regarding claims 14 and 34, Jou discloses the estimated velocity and the corresponding gain is selected according to three values in the table. Therefore, the received value is compared to the three available selections in the table (abstract).

Regarding claims 19 and 39, Jou discloses the mobile transmit level is adjusted (abstract). Jou discloses the levels of gain that will accommodate the ranges of the

Art Unit: 2611

mobile's velocity. The power level will be changed to accommodate the desired minimum levels of gain and velocity.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 16, 17, 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suonvieri et al (US 6,259,919) further in view of McNicol et al (US 5,940,454).

Regarding claims 16, 17, 36 and 37, the method and apparatus of Suonvieri is disclosed above in paragraph 5. Suonvieri does not disclose changing the type of antenna in response to the metrics. McNicol discloses a receiver, shown in figure 5, responsive to a quality metric that controls the selection of an antenna (abstract). The antennas may be omni-directional or sectored (column 9, lines 5-13). McNicol overcomes channel fading and channel distortion (column 3, lines 24-29) to allow the received signals to be received with less errors. For this reason, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teaching of McNicol into the communication system of Suonvieri.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M. Burd whose telephone number is (571) 272-3008. The examiner can normally be reached on Monday - Friday 9 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Payne can be reached on (571) 272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin M. Burd/
Primary Examiner, Art Unit 2611
4/20/2009